UNITED STATES PATENT AND TRADEMARK OFFICE

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| 09/817,102 | 03/26/2001 | Rabindranath Dutta | AUS920010044US1 | 7737 |

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| EXAMINER |
|---|
| ZIA, SYED |

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

| | **Office Action Summary** | **Application No.** | **Applicant(s)** |
|---|---|---|---|
| | | 09/817,102 | DUTTA ET AL. |
| | | **Examiner** | **Art Unit** | |
| | | SYED ZIA | 2131 | |

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1) ☒ Responsive to communication(s) filed on <u>02 July 2007</u>.

2a) ☒ This action is **FINAL.**       2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4) ☒ Claim(s) <u>1-38</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) <u>1-38</u> is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All   b) ☐ Some * c) ☐ None of:

      1. ☐ Certified copies of the priority documents have been received.

      2. ☐ Certified copies of the priority documents have been received in Application No. _____.

      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☐ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail. Date. _____.

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

# DETAILED ACTION

. This office action is in response to amendment and remarks filed on July 07,

2007. Original application contained Claims 1-38. Applicant currently amended Claim 1,

9, 12, 15, 16, 24, 27, 30, and 31. The amendment filed on July 07, 2007 have been

entered and made of record. Therefore, Claims 1-38 are pending for consideration.

## *Response to Arguments*

1.      Applicant's arguments filed on July 07, 2007.have been fully considered but they

are not persuasive because of the following reasons:

Regarding Claims 1, 9, 12, 15, 16, 24, 27, 30, and 31 applicants argued that in

cited prior art [Gladney et al. (U. S. Patent 6,044,373)] *"the enforcement mechanism,*

*including the enforcing construct, is localized in the system that requires an*

*authorization mechanism."*, and fails *to provide "a teaching of an object-oriented*

*enforcement construct associated with the invocation of a method, as recited in the*

*aforementioned independent claims".*

This is not found persuasive. Cited prior art clearly teaches method and computer

program product for object oriented access control that determines access condition of

protected element using protecting resource manager, based on request from data

manager where the protected and protecting codes are operated in distributed computers.

A client program request to resource program code to access protected element. Data

manager identifies protecting resource manager and sends request to program code.

Based on request from data manager, a manager determines access condition to the

element based on access control element (col.5 line 14 to line 38).

As a result, the system of cited prior art provides a system and method for

operating a data processing system that uses structures incorporated into object-oriented

programming languages in order to control access to protected methods, where the

enforcement construct may be applied at the class level such that each method defined

within a class becomes a protected method, as claimed in claims 1, 9, 12, 15, 16, 24, 27,

30, and 31.

Applicants <u>clearly have failed</u> to explicitly identify specific claim limitations,

which would define a patentable distinction over prior art. Therefore, the examiner

asserts that cited prior art does teach or suggest the subject matter broadly recited in

independent and dependent claims. Accordingly, rejections for Claims 1-38 are

respectfully maintained.

2.      Applicant amended the claims 9, and 12, therefore, previous rejection under 35

U.S.C. 101 has been withdrawn.

## *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by
another filed in the United States before the invention by the applicant for patent or (2) a patent granted
on an application for patent by another filed in the United States before the invention by the applicant
for patent, except that an international application filed under the treaty defined in section 351(a) shall
have the effects for purposes of this subsection of an application filed in the United States only if the
international application designated the United States and was published under Article 21(2) of such
treaty in the English language.

1.      Claim 1-38 is rejected under 35 U.S.C. 102(e) as being anticipated by Gladney et

al. (U. S. Patent 6,044,373).

The applied reference has a common assignee with the instant application.  Based

upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35

U.S.C. 102(e).  This rejection under 35 U.S.C. 102(e) might be overcome either by a

showing under 37 CFR 1.132 that any invention disclosed but not claimed in the

reference was derived from the inventor of this application and is thus not the invention

"by another," or by an appropriate showing under 37 CFR 1.131.

2.      Regarding Claim 1 Gladney teaches a process for restricting access an object-

oriented method within a data processing system, the process (Fig.1-3, 9) comprising:

initiating a call to the object-oriented method from a requester (col.9 line 61 to

col.10 line 5);

determining whether an invocation of the object-oriented method has been

restricted with an object-oriented enforcement construct (col.10 line 6 to col.10 line 20);

in response to a determination that access the object-oriented method has been restricted with an object-oriented enforcement construct, performing an authorization process to determine whether the requester is authorized to invoke the object-oriented method (col.10 line 21 to line 42); and

in response a determination that the requester is authorized to invoke the object-oriented method, invoking the object-oriented method (col.11 line 35 to col.11 line 65)

wherein an instruction to enforce said object-oriented enforcement construct is embedded in compiled source code and said source code is stored in a computer-readable medium (col.5 line 14 to line 38).

3.      Regarding Claim 9 Gladney teach a process for restricting access to an object-oriented method within a data processing system (Fig.1-3, 9), the process comprising:

editing a source code statement that defines object-oriented method within a source code file (col.18 line 34 to line 44); and

modifying the source code file to include an enforcement construct, wherein the enforcement construct comprises an authorization process identifier associated with an authorization process and a reserved word to be recognized by a compiler as requiring runtime execution of the authorization process, prior to invoking the object-oriented method, to determine whether an entity is authorized to invoke the object-oriented method (col.3 line 41 to line 60)

wherein an instruction to enforce said object-oriented enforcement construct is embedded in compiled source code and said source code is stored in a computer-readable medium (col.5 line 14 to line 38).

4.      Regarding Claim 12 Gladney teach a process for restricting access to an object-oriented method within data processing system, the process comprising:

compiling source code that defines the object-oriented method within a source code file (col.18 line 34 to line 44); and

compiling source code that defines an enforcement construct, wherein the enforcement construct comprises an authorization process identifier associated with an authorization process and a reserved word to be recognized by compiler as requiring runtime execution of the authorization process, prior invoking the object-oriented method, to determine whether an entity is authorized to invoke the object-oriented method (col.3 line 41 to line 60)

wherein an instruction to enforce said object-oriented enforcement construct is embedded in compiled source code and said source code is stored in a computer-readable medium (col.5 line 14 to line 38).

5.      Regarding Claim 15 Gladney teach a process of restricting invocation of an object-oriented method within a data processing system, the process comprising:

identifying the object-oriented method within a data structure (col.9 line 61 to col.10 line 5); and

associating an object-oriented enforcement construct with the object-oriented method, wherein the enforcement construct comprises an authorization process identifier associated with an authorization process that is to be executed, prior to invoking the

object-oriented method, to determine whether an entity is authorized to invoke the object-

oriented method (col.10 line 6 to line 42, and col.11 line 35 to col.11 line 65)

wherein an instruction to enforce said object-oriented enforcement construct is

embedded in compiled source code and said source code is stored in a computer-readable

medium (col.5 line 14 to line 38).

6.      Regarding Claim 16 Gladney teach a computer program product in a computer-

readable medium for use within a data processing system for restricting access to an

object-oriented method, the computer program product (Fgi.1-3, and 9, col.18 line 34 to

line 44) comprising:

instructions for initiating a call to the object-oriented method from a requester

(col.9 line 61 to col.10 line 5);

instructions for determining whether an invocation of the object-oriented method

has been restricted with an object-oriented enforcement construct (col.10 line 6 to col.10

line 20);

instructions for performing, in response to a determination that access to the

object-oriented method has been restricted with an object-oriented enforcement construct,

an authorization process to determine whether the requester is authorized to invoke the

object-oriented method (col.10 line 21 to line 42); and

instructions for invoking, in response to a determination that the requester is

authorized to invoke the object-oriented method, the object-oriented method (col.11 line

35 to col.11 line 65)

wherein an instruction to enforce said object-oriented enforcement construct is embedded in compiled source code and said source code is stored in a computer-readable medium (col.5 line 14 to line 38).


7.      Regarding Claim 24 Gladney teach a computer program product in a computer-readable medium for use within a data processing system to generate source code for restricting access to an object-oriented method, the computer program product (Fgi.1-3, and 9, col.18 line 34 to line 44) comprising:

        instructions for editing a source code statement that defines the object-oriented method within a source code file (col.9 line 61 to col.10 line 5); and

        instructions for modifying the source code file to include an enforcement construct, wherein the enforcement construct comprises an authorization process identifier associated with an authorization process and a reserved word to be recognized by compiler as requiring runtime execution of the authorization process, prior to invoking the object-oriented method, to determine whether an entity is authorized invoke the object-oriented method (col.10 line 6 to line 42, and col.11 line 35 to col.11 line 65)

        wherein an instruction to enforce said object-oriented enforcement construct is embedded in compiled source code and said source code is stored in a computer-readable medium (col.5 line 14 to line 38).


8.      Regarding Claim 27 Gladney teach a computer program product a computer-readable medium for use within a data processing system to generate executable code for

restricting access an object-oriented method, the computer program product (Fgi.1-3, and

9, col.18 line 34 to line 44) comprising:

      instructions for compiling source code that defines the object-oriented method

within a source code file (col.9 line 61 to col.10 line 5); and

      instructions for compiling source code that defines an enforcement construct,

wherein the enforcement construct comprises an authorization process identifier

associated with an authorization process and a reserved word to be recognized by a

compiler as requiring runtime execution of the authorization process, prior to invoking

the object-oriented method, to determine whether an entity is authorized to invoke the

object-oriented method (col.10 line 6 to line 42, and col.11 line 35 to col.11 line 65)

      wherein an instruction to enforce said object-oriented enforcement construct is

embedded in compiled source code and said source code is stored in a computer-readable

medium (col.5 line 14 to line 38).


9.      Regarding Claim 30 Gladney teach a computer program product in a computer-

readable medium for use within a data processing system for restricting invocation of an

object-oriented method, the computer program product (Fgi.1-3, and 9, col.18 line 34 to

line 44) comprising:

      instructions for identifying the object-oriented method within a data structure

(col.9 line 61 to col.10 line 5); and

      instructions for associating an object-oriented enforcement construct with the

object-oriented method, wherein the enforcement construct comprises an authorization

process identifier associated with an authorization process that is to be executed, prior to

invoking the object-oriented method, to determine whether an entity is authorized to

invoke the object-oriented method (col.10 line 6 to line 42, and col.11 line 35 to col.11

line 65)

wherein an instruction to enforce said object-oriented enforcement construct is

embedded in compiled source code and said source code is stored in a computer-readable

medium (col.5 line 14 to line 38).


10.     Regarding Claim 31 Gladney teach an apparatus for restricting access an object-

oriented method within a data processing system, the apparatus (Fgi.1-3, and 9)

comprising:

means for initiating a call to the object-oriented method from a requester (col.9

line 61 to col.10 line 5);

means for determining whether an invocation of the object-oriented method has

been restricted with an object-oriented enforcement construct (col.10 line 6 to col.10 line

20);

means for performing, in response to a determination that access to the object-

oriented method has been restricted with an object-oriented enforcement construct, an

authorization process to determine whether the requester is authorized to invoke the

object-oriented method (col.10 line 21 to line 42); and

means for invoking, in response to a determination that the requester is authorized

to invoke the object-oriented method, the object-oriented method (col.11 line 35 to col.11

line 65)

wherein an instruction to enforce said object-oriented enforcement construct is

embedded in compiled source code and said source code is stored in a computer-readable

medium (col.5 line 14 to line 38).

5.      Claims 2-8, 10-11, 13-14, 17-23, 25-26, 28-29, and 32-38 are rejected applied as

above in rejecting Claims 1, 9, 12, 16, 24, 27, and 31. Furthermore, the system of

Gladney teaches and describes an object-oriented access control method for protected

elements (Fig.1-10), comprising:

As per Claim 2, 17, and 32 in response to a determination that the requester is not

authorized to invoke the object-oriented method, returning an error response to the

requester for the call to the object-oriented method (col.11 line 43 to line 47).

As per Claim 3, 18, and 33 identifying the authorization process that is associated

with the object-oriented method (col.7 line 47 to line 56).

As per Claim 4, 19, and 34 obtaining identity information associated with the

requester; and passing the identity information associated with the requester to the

authorization process (col.13 line 57 to col.14 line 21).

As per Claim 5, 20, and 35 the authorization process is performed by invoking an

authorization method (col.14 line 9 to line 21).

As per Claim 6, 21, and 36 analyzing runtime environment information in order to

determine whether an invocation of the object-oriented method has been restricted with

an object-oriented enforcement construct (col.3 line 41 to line 60).

As per Claim 7, 22, and 37 the invocation of the object-oriented method has been restricted with an object-oriented enforcement construct applied at a method level in a source code statement for the object-oriented method (col.8 line 19 to line 50).

As per Claim 8, 23, and 38 the invocation of the object-oriented method has been restricted with an object-oriented enforcement construct applied at a class level a source code statement for a class that includes the object-oriented method (col.9 line 11 to line 27).

As per Claim 10, 13, 25, and 28 the enforcement construct is included in a source code statement that defines the object-oriented method (Fig.3, abstract).

As per Claim 11, 14, 26, and 29 the enforcement construct is included in a source code statement that defines a class that includes the object-oriented method (Fig.3, abstract).

## *Conclusion*

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action.  Accordingly, **THIS ACTION IS MADE FINAL**.  See MPEP § 706.07(a).  Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action.  In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the

advisory action. In no event, however, will the statutory period for reply expire later than

SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to SYED ZIA whose telephone number is (571)272-3798.

The examiner can normally be reached on 9:00 to 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Ayaz Sheikh can be reached on 571-272-3795. The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR. Status

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more information about the PAIR system, see http://pair-direct.uspto.gov. Should you

have questions on access to the Private PAIR system, contact the Electronic Business

Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO

Customer Service Representative or access to the automated information system, call

800-786-9199 (IN USA OR CANADA) or 571-272-1000.


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April 15, 2008
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